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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/584,423	06/22/2006	Yasuhito Yaji	01381/10	1253

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EXAMINER	
SHECHTMAN, SEAN P	
ART UNIT	PAPER NUMBER
2121	
MAIL DATE	DELIVERY MODE
05/28/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/584,423	YAJI ET AL.	
	Examiner	Art Unit	
	Sean P. Shechtman	2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 April 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,30 and 34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,30 and 34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 June 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1, 30, 34 are presented for examination. Claims 2-29, 31-33, 35-46 have been cancelled. Claim 1 has been amended.

Claim Rejections - 35 USC § 101

2. Rejections withdrawn.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1, 30, 34 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 5,216,593 to Dietrich et al (hereinafter referred to as Dietrich).

Referring to claims 1, 30, 34, Dietrich teaches a production schedule creation device, method, computer program, computer-readable medium recording a computer program (Col. 6, lines 40-63; Col. 4, lines 57-68, DARA; Col. 2, lines 32-57 and Col. 20, lines 33-35, production plan), comprising:

a production simulator that simulates a production process expressing a production state and a production constraint of the production process (Col. 19, lines 28-35, mathematically modeling the consumption of each resource by orders and the availability of resources; Col. 20, lines 44-48, mathematical model of discrete activity resource allocation problem);

a mathematical expression model holding device that holds a mathematical expression model which is created by acquiring information relating to creation of a production schedule to which attention is paid (Col. 19, lines 23-27, model generator

means responsive to data preprocessing means; Col. 20, lines 33-43, generate production plan, and mathematical model formulated using reduced activities and resources), and is a mathematical expression model expressing the production state and the production constraint of the above described production process in a mathematical expression (Col. 19, lines 28-35, mathematically modeling the consumption of each resource by orders and the availability of resources; Col. 20, lines 44-48, mathematical model of discrete activity resource allocation problem; Col. 7, line 67 – Col. 8, line 55); and

an optimization calculation device that performs optimization calculation processing by using a predetermined evaluation function for the above described mathematical expression model, and calculates a production instruction for said production simulator (Col. 19, lines 45-56),

wherein the production instruction obtained by said optimization calculation device is supplied to said production simulator to cause it to execute simulation (Col. 19, lines 48-56; Col. 20, lines 33 – Col. 21, lines 12), an instruction to perform optimization calculation is output to said optimization calculation device from said production simulator whenever a new event occurs (Col. 19, lines 48-56; Col. 20, lines 33 – Col. 21, line 12), and thereby said production simulator and said optimization calculation device are linked to each other to create the production schedule in the above described production process (Col. 6, lines 40-63; Col. 4, lines 57-68, DARA; Col. 2, lines 32-57 and Col. 20, lines 33-35, production plan).

Response to Arguments

4. Applicant's arguments, seepages 16-17, filed 4/14/08, with respect to the rejection of claims 1, 30, 34 as being anticipated by Kobayashi or Andrade have been fully considered and are persuasive. The rejections of Kobayashi and Andrade have been withdrawn.

Applicant's arguments filed 4/14/08 have been fully considered but they are not persuasive.

5. Applicant argues that Dietrich fails to teach a simulator. The examiner respectfully disagrees. The instant specification, teaches the production schedule creation "is configured by a production simulator 310, a mathematical expression model holding device 320, an optimization calculation device 330 and the like" (See paragraph 1 of page 38 of the instant specification). The instant specification further teaches the "present invention may be applied to a system composed of a plurality of devices, or may be applied to a device composed of one device" (See paragraph 3 of page 105 of the instant specification). Dietrich teaches model generator mathematically models the consumption of each resource by orders and the availability of resources (Col. 7, lines 67 – Col. 8, line 2; Col. 19, lines 25-38; Col. 20, lines 44-47). The examiner respectfully submits that mathematically modeling the consumption of each resource by orders and the availability of resources is a production simulator.

6. Applicant argues that Dietrich fails to teach the production instruction obtained by said optimization calculation device is supplied to said production simulator to cause it to execute simulation, an instruction to perform optimization calculation is output to said

optimization calculation device from said production simulator whenever a new event occurs, and thereby said production simulator and said optimization calculation device are linked to each other to create the production schedule in the above described production process. The examiner respectfully disagrees.

Dietrich teaches the optimization model controller means updates the mathematical model and calls the optimization model solver means for generating an optimal allocation of resources (Col. 19, lines 48-56), and Dietrich also teaches the corresponding method of appending constraints to the formulated mathematical model of discrete activity resource allocation problem to thereby form a new discrete activity resource allocation problem, wherein a linear relaxation of the new discrete activity resource allocation problem is subsequently solved by linear programming (Col. 20, lines 33 – Col. 21, lines 12, i.e., repeated). The examiner respectfully submits that the optimization model controller means updating the mathematical model and calling the optimization model solver means for generating an optimal allocation of resources, and the corresponding method of appending constraints to the formulated mathematical model of discrete activity resource allocation problem to thereby form a new discrete activity resource allocation problem, wherein a linear relaxation of the new discrete activity resource allocation problem is subsequently solved by linear programming, is the production instruction obtained by said optimization calculation device is supplied to said production simulator to cause it to execute simulation.

Dietrich further teaches the optimization model controller means updates the mathematical model and calls the optimization model solver means for generating an

optimal allocation of resources (Col. 19, lines 48-56), and Dietrich also teaches the corresponding method of appending constraints to the formulated mathematical model until no violated inequalities by the solution of the linear relaxation, from a list of constraints generated from the mathematical model, are found (Col. 20, lines 33 – Col. 21, lines 12). The examiner respectfully submits that the optimization model controller means updating the mathematical model and calling the optimization model solver means for generating an optimal allocation of resources, and the corresponding method of appending constraints to the formulated mathematical model until no violated inequalities by the solution of the linear relaxation, from a list of constraints generated from the mathematical model, are found, is said optimization calculation device, receiving an instruction to perform optimization calculation, output from said production simulator whenever a new event occurs.

Dietrich further teaches the method and system above, for discrete activity resource allocation to generate a production plan (Col. 6, lines 40-63; Col. 4, lines 57-68, DARA; Col. 2, lines 32-57 and Col. 20, lines 33-35, production plan). The examiner respectfully submits that the production instruction obtained by said optimization calculation device is supplied to said production simulator to cause it to execute simulation, and the an instruction to perform optimization calculation is output to said optimization calculation device from said production simulator whenever a new event occurs, for discrete activity resource allocation to generate a production plan, is said production simulator and said optimization calculation device being thereby linked to

each other to create the production schedule in the above described production process.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., linking an optimization calculation device and a production (manufacturing/distribution) simulator as in the present invention in which a distribution instruction created with an optimization calculation means is executed with a production (manufacturing/distribution) simulator means, the production (manufacturing/distribution) simulator means outputs the instruction to execute optimization calculation to the optimization calculation means for a new event, and the production (manufacturing/distribution) simulator means and the optimization calculation means are linked together, so that the manufacturing/distribution schedule is created by repeating these procedures for every event) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

7. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean P. Shechtman whose telephone number is (571)272-3754. The examiner can normally be reached on 9:30am-6:00pm, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on (571) 272-3819. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SPS

Sean P. Shechtman

May 23, 2008

/Sean P. Shechtman/
Primary Examiner, Art Unit 2121